

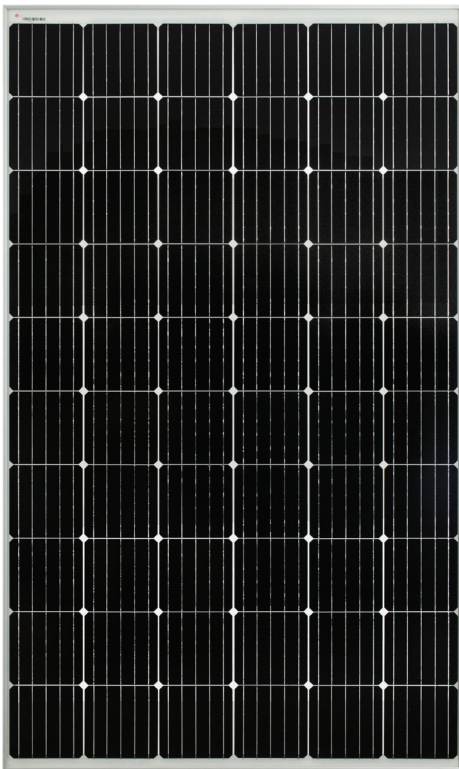
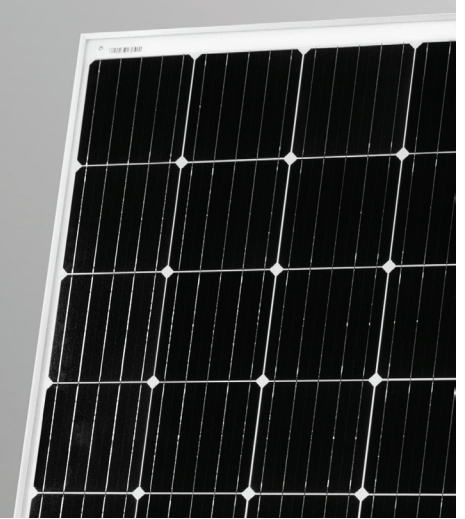
WRS MO60F

280 - 310 W

MONOCRYSTALLINE MODULE

IEC 61215, IEC 61730-1, IEC 61730-2 certified products

UNI EN ISO 9001, UNI EN ISO 14001 certified factory



Positive tolerance -0/+5Wp



Resistance to wind and snow



PID Resistant (potential induced degradation)



Maximum load 10.000 Pa



For residential and industrial plants and solar fields



High quality junction box and connector systems



Temperature coefficient



Fire-reaction Class 1



- 12 years product warranty
- 25 years linear performance warranty
- Best components certified according to european standards
- High-efficiency solar cells



Made in Europe

ELECTRICAL DATA (STD)			WRS280-MO60F	WRS290-MO60F	WRS300-MO60F	WRS305-MO60F	WRS310-MO60F
Nominal power	P_{NOM} [W]		280	290	300	305	310
Tolerance	[W]		0 ~ +5	0 ~ +5	0 ~ +5	0 ~ +5	0 ~ +5
Module efficiency	η [%]		17,16	17,77	18,39	18,69	19,00
Max power voltage	V_{MPP} [V]		32,64	33,06	33,30	33,66	34,08
Max power current	I_{MPP} [A]		8,63	8,78	9,06	9,09	9,15
Open-circuit voltage	V_{OC} [V]		38,64	38,82	39,30	39,72	39,96
Short-circuit current	I_{SC} [A]		9,17	9,25	9,57	9,63	9,68
Maximum system voltage	V_{DC} [V]		1000	1000	1000	1000	1000

Measurements under standard test conditions of cells (STC): 1000 W/m² ; AM 1,5 ; 25°C ; electrical measurements have a tolerance of +/- 5%.

ELECTRICAL DATA (NOCT)			WRS280-MO60F	WRS290-MO60F	WRS300-MO60F	WRS305-MO60F	WRS310-MO60F
Max power	P_{MAX} [W]		206,98	214,37	221,76	225,46	229,15
Max power voltage	V_{MPP} [V]		30,16	30,55	30,77	31,11	31,49
Max power current	I_{MPP} [A]		6,90	7,02	7,24	7,27	7,31
Open-circuit voltage	V_{OC} [V]		35,71	35,87	36,32	36,71	36,93
Short-circuit current	I_{SC} [A]		7,33	7,40	7,65	7,70	7,74

Measurements under nominal operating conditions of cells (NOCT): 800 W/m² ; AM 1,5 ; 45°C ; electrical measurements have a tolerance of +/- 5%.

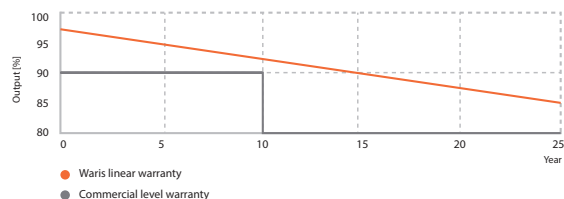
MECHANICAL DATA		
Dimensions	[mm]	1648 x 990 x 34 ± 2
Weight	[kg]	19
Number of cells		60
Cell size	[mm]	156 x 156
Cell material		monocrystalline silicon
Front cover		3.2 mm glass tempered
Encapsulation material		EVA - Ethil vinyl acetate
Backsheet material		PPE, white
Frame material		anodized aluminium
Junction box		IP67 with 3 bypass-diodes
Connettors		MC4 compatible

TEMPERATURE COEFFICIENT			
NOCT*	[°C]		45 ± 2
Temperature coefficient I_{SC}	$\alpha (I_{SC})$ [%/K]		+0,05
Temperature coefficient V_{OC}	$\beta (V_{OC})$ [%/K]		-0,33
Temperature coefficient P_{MPP}	$\gamma (P_{MPP})$ [%/K]		-0,38

*Nominal Operating Cell Temperature

OPERATING CONDITIONS		
Temperature	[°C]	-40 ~ +90
Max load	[Pa]	10000

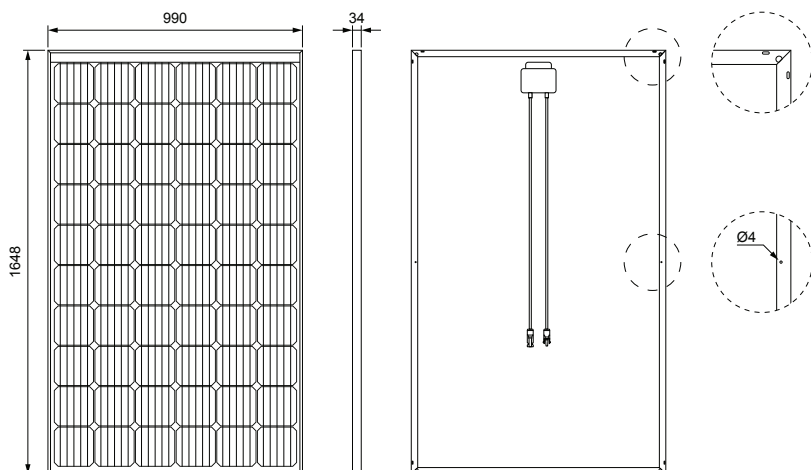
LINEAR WARRANTY 25 YEARS *



* If installed and used in compliance with the requirements for storage, installation, use and maintenance contained in the installation manual.

PLEASE CONTACT YOUR AUTHORISED WARIS DEALER

DIMENSIONS [mm]



Waris Srl reserves at any time to make changes to the technical data of the product.